

IN THE CLAIMS:

Cancel claims 12 and 13, and amend claims 1, 5, 6, 9, 14 and 43 as follows:

1. (Currently Amended) A ~~laser~~light based coordinate measuring device for measuring a position of a remote target, the measuring device comprising:

a first portion having at least a first light source or a first optical detector;

a second portion rotatable with respect to the first portion;

a first motor structured to rotate the second portion with respect to the first portion;

a first angular encoder to measure the rotation of the second portion about a first axis;

a second motor to rotate the second portion about a second axis;

a second angular encoder to measure the rotation of the second portion about the second axis;

wherein the first and second axes are substantially orthogonal with respect to each other; and

at least a first optical fiber system that connects to both the first light source and the first optical detector, the first optical fiber system having an emission end disposed on the second portion and configured to emit light to the remote target and to receive light reflected from the remote target,

wherein an emission direction of the ~~laser radiation emitted light to the remote target~~ is fixed with respect to the second portion.

2. (Previously Presented) The device according to claim 1, wherein the first optical fiber system includes at least first, second, and third optical fibers and a coupler assembly, wherein the third optical fiber has the emission end coupled to the first and second optical fibers by the coupler assembly.

3. (Previously Presented) The device according to claim 2, wherein the coupler assembly is disposed on one of the second portion and the first portion.
4. The device according to claim 1, wherein the device is structured to determine the distance from the device to the remote target.
5. (Currently Amended) The device according to claim 1, further comprising a second light source and a second optical fiber system ~~for optically interconnecting the second light source and the second portion.~~
6. (Currently Amended) The device according to claim 5, further comprising a beam combiner disposed on the second portion ~~for receiving and combining to combine~~ light emitted from the first and second optical fiber systems into a substantially single composite beam.
7. (Previously Presented) The device according to claim 6,
 - wherein the beam combiner includes at least one beam splitter, and
 - wherein the light from one of the first and second optical fiber systems is transmitted through the beam splitter, and
 - wherein the light from the other one of the first and second optical fiber systems is reflected off the beam splitter, and
 - wherein the light transmitted through the beam splitter and the light reflected off the beam splitter are combined.
8. (Cancelled)
9. (Currently Amended) The device according to claim 1, further comprising a beam expander ~~to expand the diameter of a beam including the light from the first optical fiber system.~~
10. (Previously Presented) The device according to claim 1, wherein the remote target includes a retroreflector.

11. (Previously Presented) The device according to claim 1, further comprising a position detector structured to detect light reflected from the remote target.

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) The device according to claim 13, wherein a segment of the first optical fiber system is disposed near one of the first axis and the second axis. |

15. (Previously Presented) The device according to claim 14, wherein the segment of the first optical fiber system allows rotation about at least one axis without disturbing signals carried by the first optical fiber system.

16. (Previously Presented) The device according to claim 1, wherein the first optical detector is a part of an absolute distance meter.

17. (Previously Presented) The device according to claim 16, further comprising an incremental distance meter.

18. (Previously Presented) The device according to claim 1, wherein the first optical detector is a part of an incremental distance meter.

19. (Previously Presented) The device according to claim 1, further comprising a locator camera.

20. (Previously Presented) The device according to claim 1, further comprising an orientation camera structured to image the remote target.

21-42. (Cancelled)

43. (Currently Amended) The device according to claim 1, wherein the emitted light
passes through at least one lens disposed on the second portion~~first fiber optical~~
system is optically coupled to a first optical fiber termination disposed on the second
portion; and the device further comprises a collimator disposed on the second portion,
the collimator being configured to collimate light emitted from the first fiber
termination.